



Box SEC
IFW

Docket No.: 1254-0299PUS1
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Takaji Wakita et al.

Application No.: 10/558,155

Confirmation No.: 6809

Filed: November 23, 2005

Art Unit: Not Yet Assigned

For: A NUCLEIC ACID CONSTRUCT
CONTAINING A NUCLEIC ACID DERIVED
FROM THE GENOME OF HEPATITIS C
VIRUS (HCV) OF GENOTYPE 2A, AND A
CELL HAVING SUCH NUCLEIC ACID
CONSTRUCT INTRODUCED THEREIN

Examiner: Not Yet Assigned

**RESPONSE TO NOTIFICATION TO COMPLY WITH REQUIREMENTS FOR
PATENT APPLICATIONS CONTAINING NUCLEOTIDE AND/OR AMINO ACID
SEQUENCE DISCLOSURES**

MS PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Notification to Comply with Requirements for Patent Applications Containing Nucleotide and/or Amino Acid Sequence Disclosures dated May 2, 2007, Applicant respectfully submits:

☒ Attached is a copy of the Notification to Comply with Requirements for Patent Applications Containing Nucleotide and/or Amino Acid Sequence Disclosures.

☐ Under the provisions of 37 C.F.R. §§ 1.41(c) and 1.53(f), attached hereto is the executed Declaration of the inventor(s) (☐ original ☐ photocopy), necessary for completing the filing requirements in connection with the above-identified application.


- ☐ Under the provisions of 37 C.F.R. §§ 1.41(c) and 1.53(f), attached hereto is the executed Declaration that was attached to the specification at the time of execution. The attached specification is a true copy of the specification that was filed in the U.S. Patent and Trademark office on United States of America, including any amendments thereto (if applicable) filed on even date therewith.
- ☐ The undersigned hereby declares that "Attorney Docket No. 1254-0299PUS1" on page 1 of the attached inventors' Declaration, corresponds to Appl. No. 10/558,155, filed November 23, 2005, entitled "A NUCLEIC ACID CONSTRUCT CONTAINING A NUCLEIC ACID DERIVED FROM THE GENOME OF HEPATITIS C VIRUS (HCV) OF GENOTYPE 2A, AND A CELL HAVING SUCH NUCLEIC ACID CONSTRUCT INTRODUCED THEREIN."
- ☐ Attached is an English language translation of the above-identified application that was filed in a foreign language, which should be used as the copy for examination purposes.
 - ☐ See the attached Translator's Verification; or
 - ☐ The undersigned states that the English translation attached hereto is a true and correct translation of the application as originally filed in a foreign language.
- ☐ Attached are 0 sheet (s) of drawings. Please substitute these replacement drawings for the corresponding 0 sheet(s) of drawings on file in the above-identified application.
- ☐ Attached is a Preliminary Amendment.
- ☐ Attached are substitute claims commencing on a separate sheet in accordance with 37 C.F.R. § 1.75(h).
- ☐ Attached is a substitute abstract commencing on a separate sheet in accordance with 37 C.F.R. § 1.72(b).

- ☒ Attached is the paper and CRF disk copy of the Sequence Listing.
- ☒ Attached an Amendment.
- ☐ Attached is a Claim for Priority document.
- ☐ Attached is a Supplemental Application Data Sheet (ADS).
- ☐ Submitted concurrently herewith **under separate cover** for recording is an Assignment.
- ☐ Attached is a Petition for Extension of Time.
- ☐ Attached hereto is the fee transmittal listing the required fees.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to our Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

Dated: May 25, 2007

Respectfully submitted,

By 
Andrew D. Meikle
Registration No.: 32,868
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Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
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Attachment(s)



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

ADM

U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/558,155	Takaji Wakita	1254-0299PUS1

2292
 BIRCH STEWART KOLASCH & BIRCH
 PO BOX 747
 FALLS CHURCH, VA 22040-0747

Guernsey
DOCKETED
sequence listing
6-2-2007

INTERNATIONAL APPLICATION NO.	
PCT/JP03/15038	
I.A. FILING DATE	PRIORITY DATE
11/25/2003	05/26/2003

CONFIRMATION NO. 6809

371 FORMALITIES LETTER



OC000000023623591

Date Mailed: 05/02/2007

NOTIFICATION OF DEFECTIVE RESPONSE

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495)

- Priority Document
- Copy of the International Application filed on 11/23/2005
- English Translation of the IA filed on 11/23/2005
- Copy of the International Search Report filed on 11/23/2005
- Copy of IPE Report filed on 11/23/2005
- Preliminary Amendments filed on 11/23/2005
- Information Disclosure Statements filed on 11/23/2005
- Biochemical Sequence Diskette filed on 01/03/2007
- Oath or Declaration filed on 01/03/2007
- Biochemical Sequence Listing filed on 01/03/2007
- U.S. Basic National Fees filed on 11/23/2005
- Priority Documents filed on 11/23/2005
- Specification filed on 11/23/2005
- Claims filed on 11/23/2005
- Abstracts filed on 11/23/2005
- Drawings filed on 11/23/2005
- Paper nucleotide sequence listings filed on 11/23/2005

Applicant's response filed 01/03/2007 is hereby acknowledged. The following requirements set forth in the NOTIFICATION of MISSING REQUIREMENTS mailed 11/03/2006 have not been completed:

- The paper or compact disc copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 CFR 1.821(e). Applicant must provide a substitute paper or compact disc copy of the "Sequence Listing", as well as an amendment specifically directing its entry into the application OR a substitute computer readable form (CRF) copy of the "Sequence Listing". These two items must be the same. Applicant must also provide a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR

1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). If the effective filing date is on or after September 8, 2000, see the final rulemaking notice published in the Federal Register at 65 FR 54604 (September 8, 2000) and 1238 OG 145 (September 19, 2000).

- The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d). Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d). If applicant desires the sequence listing in the instant application to be identical with that of another application on file in the U.S. Patent and Trademark Office, such request in accordance with 37 CFR 1.821(e) may be submitted in lieu of a new CRF.

Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR 1.136, but the period for response set in the Notification of Missing Requirements may be extended under 37 CFR 1.136(a).

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:

- **For Rules Interpretation, call (571) 272-0951**
- **For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.**
- **Send e-mail correspondence for Patentin Software Program Help @ ebc@uspto.gov**

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.
<https://portal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at 1-866-217-9197 or visit our website at <http://www.uspto.gov/ebc>.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

ANITA D JOHNSON

Telephone: (703) 308-9140 EXT 226

PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/558,155	PCT/JP03/15038	1254-0299PUS1

STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING
ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

Source:

Date Processed by STIC:

10/558/55
TEUBP
3/15/07

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (<<http://www.uspto.gov/ebs/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)**
- 2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**
- 3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05): U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314**

Revised 01/10/06

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 10558,155

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
"bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
(OLD RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(ii) SEQUENCE DESCRIPTION: SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
(NEW RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 9 Use of n's or Xaa's
(NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 Invalid <213>
Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220> ~~Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)~~
- 12 PatentIn 2.0
"bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n/Xaa "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



IFWP

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/558,155

DATE: 03/15/2007

TIME: 11:30:32

Input Set : A:\2007-01-03 1254-0299FUS1.txt

Output Set: N:\CRF4\03152007\J558155.raw

3 <110> APPLICANT: WAKITA, Takaji
 4 KATO, Takanobu
 5 DATE, Tomoko
 7 <120> TITLE OF INVENTION: A NUCLEIC ACID CONSTRUCT CONTAINING A NUCLEIC ACID DERIVED
 8 FROM THE GENOME OF HEPATITIS C VIRUS (HCV) OF GENOTYPE 2a,
 9 AND A CELL HAVING SUCH NUCLEIC ACID CONSTRUCT INTRODUCED THEREIN
 11 <130> FILE REFERENCE: 1254-0299FUS1
 13 <140> CURRENT APPLICATION NUMBER: US 10/558,155
 14 <141> CURRENT FILING DATE: 2005-11-23
 16 <150> PRIOR APPLICATION NUMBER: PCT/JP2003/015038
 17 <151> PRIOR FILING DATE: 2003-11-25
 19 <150> PRIOR APPLICATION NUMBER: JP 2003-148242
 20 <151> PRIOR FILING DATE: 2003-05-26
 22 <150> PRIOR APPLICATION NUMBER: JP 2003-329115
 23 <151> PRIOR FILING DATE: 2003-09-19
 25 <160> NUMBER OF SEQ ID NOS: 41
 27 <170> SOFTWARE: PatentIn Ver. 2.1
 29 <210> SEQ ID NO: 1
 30 <211> LENGTH: 8024
 31 <212> TYPE: RNA
 32 <213> ORGANISM: Artificial Sequence
 34 <220> FEATURE:
 35 <223> OTHER INFORMATION: Description of Artificial Sequence: replicon
 37 <400> SEQUENCE: 1
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 39 cuucacgcag aaagcgccua gccauggcgu uaguaugagu gucuacagc cuccaggccc 120
 40 cccccucccg ggagagccau aguggucugc ggaaccggug aguacaccgg aaungccggg 180
 41 aagacugggu ccuucuuugg auaaaccac ucuaugccc gccauuugg cgugcccccg 240
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 43 cguugcgag ugccccggga ggucucguag accgugcacc augagcaca auccuaaacc 360
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 56 ugcuagaag cuuggcggcg aaugggcuga ccgcuuccc gugcuuucg guaucgccc 1140

Does Not Comply
 Corrected Diskette Needed

PLS explain source
 of genetic material.

Invalid
 response

PLS see
 item #11
 on
 error
 Summary
 Sheet.

RAW SEQUENCE LISTING

DATE: 03/15/2007

PATENT APPLICATION: US/10/558,155

TIME: 11:30:32

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Output Set: N:\CRF4\03152007\J558155.raw

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RAW SEQUENCE LISTING

DATE: 03/15/2007

PATENT APPLICATION: US/10/558,155

TIME: 11:30:32

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Output Set: N:\CRF4\03152007\J558155.raw

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125 cuaacagauc cgccccacau cacggcgag acugcgcggc ggcgcuuggc acggggauca 5280
126 ccuccaucug aggcgagcuc cucagugagc cagcuauacg caccguogcu gcggggccacc 5340
127 ugacaccacc acagcaacac cuaugacgug gacauaggug augccaaccu gcucauggag 5400
128 gggggugugg cucagacaga gccugagucc agggugcccc uucggacuu ucucgagcca 5460
129 augggcgagg aagagagcga ccuugagccc ucaauaccau cggagugcau gcuccccagg 5520
130 agcgguuuuc cacgggccc uaccggcuug gcacggccug acuaacaacc gccgucugug 5580
131 gaaucgugga gggagccaga uuaccaaccg cccaccguug cugguuugc ucucgccc 5640
132 cccaagaagg ccccgagcgc ucccccaagg agacggcgga cagugggucu gagcgagagc 5700
133 accauaucag aagccucca gcaacugggc aucaagaccu uggccagcc cccucgagc 5760
134 ggugaugcag gcucguccac gggggcgggc gccgcccga uccggcgucc gacgucuccu 5820
135 ggugagccgg ccccccuga gacagguucc gccuccuua ugccccccu cgagggggag 5880
136 ccuggagauc cggaccugga gucugaucag guagagcuuc aaccuccccc ccagggggg 5940
137 gggguagcuc ccggguccgg cucggggucu uggucuaau gcuccgaggga ggacgauacc 6000
138 accgugugcu gcuccauguc auacuccug accggggcuc uaaauaacucc cuguagcccc 6060
139 gaagaggaaa aguugccaau caaccuuug aguaacucgc uguugcgaua ccauaacaag 6120
140 guguacugua caacaucaaa gagcgccua cagagggcu aaaaagguaa uuungacagg 6180
141 acgcaagugc ucgacgccc uuaugacua gcuuaaagg acaucaagcu agcggcuucc 6240
142 aaggucagcg caaggcucc caccuaggag gagcgugcc aguuagacuc accccauuc 6300
143 gcaagaucca aguauggau cggggccaag gaggucgca gcuuugccg gaggggccgu 6360
144 aaccacauca aguccgugug gaaggaccuc cuggaagacc cacaacacc aaaucccaca 6420
145 accaucaugg ccaaaaaua gguuuucug guggacccc ccaagggggg uaagaaacca 6480
146 gcucgcccua ucguuuacc ugaccucggc guccgggucu gcgagaaaau ggcccucua 6540
147 gacauuacac aaaagcuucc ucaggcgua augggagcu ccuauggcu ccaguaucc 6600
148 ccugcccaac ggguggagua ucucuugaa gcauggcgg aaaagaagg ccccaugggu 6660
149 uuucguaug auacccgag cuucgacua accgucacug agagagacau caggaccgag 6720
150 gaguccauu accaggccug cuccugccc gaggaggccc gcacugccau acacucgug 6780
151 acugagagac uuucguagg agggcccaug uucaacagca agggucacac cugcgguuac 6840
152 agacguugcc gcgcccagc ggugcuuacc acuaugcagg guaacacca cacaugcuau 6900
153 gugaaagccc uagcgccug caaggcugc gggauaguu cggccacaau gcugguaugc 6960
154 ggcgaugacc uaguaguc cuacagaaag caggggacug agggaggaga gcggaaccug 7020

```

RAW SEQUENCE LISTING

DATE: 03/15/2007

PATENT APPLICATION: US/10/558,155

TIME: 11:30:32

Input Set : A:\2007-01-03 1254-0299PUS1.txt

Output Set: N:\CRF4\03152007\J558155.raw

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155 agagccuucac cggaggccau gaccagguauc ucugcccuc cuggugaucc cccagaccg 7080
156 gaauaugacc uggagcuauu aacauccugu uccucaaau ugucuguggc guugggccc 7140
157 cggggccgcc gcagauacua ccugaccaga gacccaacca cuccacuogc cggggcugcc 7200
158 ugggaaacag uuagacacuc cccuaucaau ucauggcugg gaaacaucau ccaguaugcu 7260
159 ccaaccuauu gggguccgcau gguccuaau acacacuuc ucuccauucu caugguccaa 7320
160 gacaccucgg accagaaccu caacuugag auguauggau caguauacuc cgugaauccu 7380
161 ugggaccuuc cagccauauu ugagagguaa cacgggcug acgcccuuuc uaugcacaca 7440
162 uacucucacc acgaacugac gcgguuggc ucagccuca gaaacuuug ggcgccacc 7500
163 cucagggugu ggaagaguc ggcucgcgc gucagggcg cccuauuc cgguggagg 7560
164 aaagcggccg uuugcggccg auaucucuuc aaugggcg ugaagaccaa gcucacacuc 7620
165 acuccauugc cggaggcgcc ccuacuggac uuauccaguu ggucacccg cggcgccggc 7680
166 gggggcgaca uuuuucacag cgugucgcgc gccogaccc gcucuuacu cuccggccua 7740
167 cuccuacuuu ucguaggguu aggcucuuc cuacucggc cugguagag cggcacacac 7800
168 uagguacacu ccuagcuuaa cuguuccuuu uuuuuuuuu uuuuuuuuu uuuuuuuuu 7860
169 uuuuuuuuuu cuuuuuuuu uuuuuccuc uuucuuucc ucucacuaa uuucacuuu 7920
170 uuucuuugug gcuccauuu agccuaguc acggcuagcu gugaaagguc cgugagccgc 7980
171 augacugcag agagugccgu aacuggucuc ucugcagauc augu 8024

```

174 <210> SEQ ID NO: 2

175 <211> LENGTH: 8024

176 <212> TYPE: RNA

177 <213> ORGANISM: Artificial Sequence

179 <220> FEATURE:

180 <223> OTHER INFORMATION: Description of Artificial Sequence: replicon

182 <400> SEQUENCE: 2

```

183 accgccccu aauagggcg acacucgcc augaaucau cccugugag gaacuacgu 60
184 cuucacgcag aaagcgucua gccauggcg uaguaugau gucguacagc cuccaggccc 120
185 ccccccuccg ggagagccau aguggucugc ggaaccggug aguacacgg aaungccgg 180
186 aagacugggg ccuucuuug auaaaaccac ucuaugccc gccauuugg cgugccccc 240
187 caagacugcu agccagauag cguuggguug cgaaggccu uugguuacug ccugauagg 300
188 ugcuuugcag ugccccggga ggucucguag accgugcacc augagcaca aucccaaac 360
189 ucaaaagaaa accaaaagaa acacuaacc ucgcccuaug auugaacaag auggauuga 420
190 cgcagguucu cggcgccguu ggguggagag gcuaucggc uaugacuggg cacaacagac 480
191 aaucggcugc ucugaugccg ccgguuuccg gcugucagcg caggggcgcc cgguuuuuu 540
192 ugucaagacc gaccuguccg gugcccgaa ugaacugcag gacgaggcag cgcggcuau 600
193 guggcuggcc acgacggcg uuuccuugcg agcugugcuc gacguuguca cugaagcgg 660
194 aagggaucug cugcuauugy gcgaagugcc ggggcaggau cuccugucau cuacccuug 720
195 uccugccgag aaagauucca ucauggcuga ugcaaugcg cggcugcau cguugaucc 780
196 ggcuaaccug ccuucgacc accaagcgaa acaucgcauc gacgagcac guacucggau 840
197 ggaagccggg cuugucguc aggaugauc ggacgaagag caucagggc ucgcgccagc 900
198 cgaacuguuu gccaggcuca aggcgcgcau gccgaagcg gaggauucg ucgugacca 960
199 uggcgauucc ugcuugccga auaucauggu ggaauauggc cguuuuucg gauucauca 1020
200 cuguggccgg cuggguugug cggaccgcu ucaggacaua cguuggcuu cccgugauu 1080
201 ugcugaagag cuuggcgcg aaugggcuga ccgcuuccc gugcuuacg guaucgccg 1140
202 ucccgauucg cagcgcaucg ccuucuaucg ccuucuuagc gaguucuuu gaguuuaac 1200
203 ccucuccuc ccccccccu aacguuacug gccgaagcg cuuggaaua ggccggugug 1260
204 cguuugucua uauuuuuuu uccaccauu ugccgucuu uggcaaugug agggcccgga 1320
205 aaccuggccc ugucuuucug acgagcauuc cuagggguc uuccccuc gccaaggaa 1380
206 ugcaagugcu gugaaggaag caguuccuc ggaagcuuc ugaagacaaa 1440
207 caacgucugu agcgaccuu ugaggcgag ggaaccccc accuggcgac agguccucu 1500

```

Same error

See item

#11 on error summary sheet

The type of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

RAW SEQUENCE LISTING

DATE: 03/15/2007

PATENT APPLICATION: US/10/558,155

TIME: 11:30:32

Input Set : A:\2007-01-03 1254-0299F081.txt

Output Set: N:\CRF4\03152007\J558155.raw

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208 gcggccaaaa gccacgugua uaagauacac cugcaaaaggc ggacacaacc cagugccacg 1560
209 uuugugaguuu gauaguugug gaaagaguca aaugggcucuc cucaagcgua uucaacaagg 1620
210 ggcugaagga ugcccagaag guaccccauu guaugggauu ugaucugggg ccucggugca 1680
211 caugcuuuac auguguuuag ucgagguuua aaaaacgucu agggcccccgc aaccacgggg 1740
212 acgugguuuu ccuuugaaaa acacgauaau accaugggcc ccaucaccgc uuacgcccag 1800
213 cagacacgag gucucuuggg cucuaauagug gugagcauga cggggcguga caagacagaa 1860
214 caggccgggg agguccaagu ccuguccaca gucacucagu ccuuccucgg acauccauu 1920
215 ucgggggucu uauggacugu uuaccacgga gcuggcaaca agacacuagc cggcucgagg 1980
216 gggccgguca cgcagaugua cucgagcgcc gagggggacu ugguccggug gcccagcccu 2040
217 ccugggacca aaucuuugga gccguguaag uguggagcgg ugcaccugua uuuggucacg 2100
218 cggaacgcug augucauccc ggcucgaaga cgcggggaca agcggggagc gcugcucucc 2160
219 ccgagacccc uuucgacctu gaaggggucc ucggggggac cugugcuuug ccuaggggc 2220
220 cagcgugucg gaauucuccg ggcagcugug ugucucgggg guugggcuua guccaauaga 2280
221 uucauccccg uuagacgcgu gcacaucguc acgcgguuc caccuuuag ugacaacagc 2340
222 acaccaccag cugugcccca gaccuauacg gugggguacu ugcacgccc caccuggcag 2400
223 ggaaaaagca ccaagguccc cgcgcgcgac gccggccagg gguauaaagu gcugguugcu 2460
224 aaucccucgg ugucugccac ccugggaauu gggggcgacu ugcuccaagg acauggcauc 2520
225 aaccccaaca uuaggacugg agucagaacu gugacgaccg gggagcccau uacauacucc 2580
226 acguauggua aaauccucgc cgaugggggc ugccgaggcg gcccuanga caucaucau 2640
227 ucggaugaau gccacucugu ggaugcuacc acuaucucg gcaucgggac aguccuugac 2700
228 caagcagaga cagccggggg caggcuacu guacugggca cggccacgcc ccccgggucg 2760
229 gugacaaccc cccaucccaa uauagaggag guagccucg gacaggaggg ugagaucccc 2820
230 uucauaggga gggcguuucc ccugucuuac aucaaggag gggaggcacu gauuuucugc 2880
231 cacucaaaaga aaaaguguga cagcucgcga accggccuuc ggggcauggg cuugaacgcu 2940
232 guggcauuu acagaggguu ggcagucucc auaaauacca cucaaggaga ugugguggu 3000
233 guugccaccg accccucacu gacggggauu acuggagacu uuagacucgu gaucgacugc 3060
234 aacguagcgg ucaccacagg cguagacuuc agccuggacc ccaccuicac uauaaccaca 3120
235 cagacugucc cgaagacgc ugucucacgu agucagcgcc gaggggcgac ggguagaggga 3180
236 agacugggca uuauaggua ugauuccacu gguagagcag ccucaggaa uuuugacagu 3240
237 guaguacucu gugagugua cagcagcagg gcugcuuggu augagcucuc accaguggag 3300
238 acgaccguca ggcucagggc guauuucaac accccuggc ugcugugug ccaggaccac 3360
239 cuugaguuu gggaggcgag uuucacggc cucacacaca uagacgcuca uuuccuuucc 3420
240 cagacaaagc agucggggga aaauuucgca uacuuaguag ccuaucaggc cacagugugc 3480
241 gccaggggca aagcgccccc cccgucucgg gacgucaugu ggaagugcuu gacucgacuc 3540
242 aagcccacgc uuugggggcc uacaccucuc cuguaccguu ugggcucugu uacaaacgag 3600
243 gucacccuua cacacccggu gacaaaauac auctgccacu gcaugcaagc ugaccucgag 3660
244 gucaugacca gcacgugggg ccuggcuggg ggaugcuuag cagcgucgc cgguaauugc 3720
245 uuagcgaccg gguguguuuc caucauuggc cguuuacaca ucaaccagcg agcugucguc 3780
246 gcuccggaca aggagguccu cuuagaggcu uuugaugaga uggagggaug ugccuccaga 3840
247 ggggcucucc uugaagaggg gcagcggaug gccgagauic ugaaguccaa gaucacaagg 3900
248 uuauugcagc aagccucuaa acaggcccg gacauacaac ccgucugca agcuucgug 3960
249 cccaagagg agcaauucg ggcacaacau auguggaacu ucauaagcgg cauucaguac 4020
250 cucgaggac ugucacacu gccagggaac ccugcugug cuuccaugau ggcauucagc 4080
251 gccggccuca ccaguccguu gucaacuagc accaccaucc uuauaaca ucuugggggc 4140
252 ugucggcggu cccaaauug gccacnccg gggggccacg gcuuuguugu caguggccug 4200
253 gugggagcug cuguuggcag cauaggcuug gguaaagugc ugguaggacu ccuggcaggg 4260
254 uauggugcgg gcauuucgg ggcucucguc cguuuuaga ucaugucug cgagaagccc 4320
255 uccaaggagg augucaucaa cuugcugccu gggauucgu cccaggugc ucugguugug 4380
256 ggagucaucu gcgcggccau ucugcgccg caugugggac cgggggaagg cgcgguccaa 4440

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/558,155

DATE: 03/15/2007

TIME: 11:30:33

Input Set : A:\2007-01-03 1254-0299PUS1.txt

Output Set: N:\CRF4\03152007\J558155.raw